

Attorney's Docket No.: 07977/286001/US5247

REMARKS

Reconsideration and allowance of the above referenced application are respectfully requested.

Claims 15-28 stand rejected under 35 USC 103(a) as being unpatentable over Susko in view of Sill. In order to distinguish over this combination of references, claims 15, 18, 20, 22, 24, 26 and 27 are amended to recite that the second electrode is flush with the third electrode.

Susko discloses the electrode 21 being positioned close to a workpiece 26, and electrode 19 being spaced at a slightly greater distance from the workpiece 26; see Figure 5. However, Susko does not teach the second electrode being flush with the third electrode. Nor is this taught or suggested by the Sill reference.

Accordingly, it is respectfully suggested that this amendment obviates the rejection.

Claim 29 is also added which defines similar subject matter.


In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

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Please apply \$410.00 for the two month extension fee and
\$18.00 for additional claims and any other charges or credits to
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Respectfully submitted,

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Attached is a marked-up version of the changes being made
by the current amendment.

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Version with markings to show changes madeIn the claims:

Please amend claims 15, 18, 20, 22, 24, 26, 27 as follows:

15. (Amended) An etching method using a dry etching apparatus provided with [a] at least first [electrode and a], second and third electrodes, said first electrode being opposed to [each other] said second and third electrodes, the method comprising the steps of:

disposing a substrate on said second and third electrodes [comprising a plurality of electrodes provided] in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to [an] said second electrode disposed below a central portion of said substrate and applying a second high-frequency power to said third electrode[s] disposed below corner portions of said substrate to supply an AC electric field between said first electrode and said second and third electrodes;

generating plasma between said first electrode and said second and third electrodes; and

etching a material film on said substrate disposed on said second and third electrodes[.],

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wherein said second electrode is flush with said third electrode.

18. (Amended) An etching method using a dry etching apparatus, the method comprising the steps of:

disposing a substrate on a plurality of electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to an electrode disposed below a central portion of said substrate and applying a second high-frequency power to electrodes disposed below corner portions of said substrate;

generating plasma with a magnetic field or an electric field; and

etching a material film on said substrate disposed on said plurality of electrodes[.],

wherein said plurality of electrodes are flush with each other.

20. (Amended) A method of forming a wiring, the method comprising the steps of:

forming a conductive film on a substrate;

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selectively forming a mask on said conductive film;
disposing said substrate on [a] at least first and second
electrodes [comprising a plurality of electrodes] provided in a
chamber [of a dry etching apparatus] provided with a [first]
third electrode [and said second electrode] opposed to [each
other] said first and second electrodes;
supplying a reaction gas into said chamber under a reduced
pressure;
applying a first high-frequency power to [an] said first
electrode disposed below a central portion of said substrate and
applying a second high-frequency power to said second
electrode[s] disposed below corner portions of said substrate to
apply an AC electric field between said [first] third electrode
and said first and second electrodes;
generating plasma between said [first] third electrode and
said first and second electrodes; and
selectively etching said conductive film on said
substrate[.],
wherein said first electrode is flush with said second
electrode.

22. (Amended) An etching method using a dry etching
apparatus,

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providing [a] at least first [electrode], [a plurality of] second and third electrodes being independent from each other, said first electrode being opposed to said second and third electrodes, and [a plurality of] at least first, second, third high-power sources independently connected to each of said first [electrode and said plurality of], second and third electrodes, respectively, the method comprising the steps of:

disposing a substrate on said [plurality of] second and third [of] electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma between said first electrode and said [plurality of] second and third electrodes; and

etching a material film on said substrate disposed on said [plurality of] second and third electrodes,

wherein said [plurality of] second and third electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform[.],

wherein said second electrode is flush with said third electrode.

24. (Amended) A method of manufacturing a semiconductor device using a dry etching apparatus,

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providing [a] at least first [electrode and a plurality of], second and third electrodes being independent from each other, said first electrode being opposed to said second and third electrodes, [the method comprising the steps of:]

forming a material film on a substrate;

selectively forming a mask on said material film;

disposing said substrate on said [plurality of] second and third electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to [an] said second electrode disposed below a central portion of said substrate and applying a second high-frequency power to said third electrode[s] disposed below corner portions of said substrate;

generating plasma between said first electrode and said [plurality of] second and third electrodes; and

etching a material film on said substrate disposed on said [plurality of] second and third electrodes[.],

wherein said second electrode is flush with said third electrode.

26. (Amended) An etching method comprising:

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providing [a plurality of] at least first and second electrodes and [a plurality of] at least first and second high-power sources independently connected to each of said [plurality of] first and second electrodes;

disposing a substrate on said [plurality of] first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma; and

etching a material film on said substrate disposed on said [plurality of] first and second electrodes,

wherein said [plurality of] first and second electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform[.],

wherein said first electrode is flush with said second electrode.

27. (Amended) A method of manufacturing a semiconductor device comprising:

providing [a plurality of] at least first and second electrodes,

forming a material film on a substrate;

selectively forming a mask on said material film;

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disposing said substrate on said [plurality of] first and second electrodes provided in a chamber;

supplying a reaction gas into said chamber under a reduced pressure;

applying a first high-frequency power to [an] said first electrode disposed below a central portion of said substrate and applying a second high-frequency power to said third electrode[s] disposed below corner portions of said substrate;

generating plasma; and

etching a material film on said substrate disposed on said [plurality of] first and second electrodes[.]

wherein said first electrode is flush with said second electrode.

Please add the following new claim:

29. (New) An etching method comprising:

providing at least first, second, third, fourth and fifth electrodes and at least first, second, third, fourth and fifth high-power sources independently connected to each of said first, second, third, fourth and fifth electrodes;

disposing a substrate on said first, second, third, fourth and fifth electrodes provided in a chamber, wherein said first

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electrode is located below a central portion of said substrate and second, third, fourth and fifth electrodes are located below corner portions of said substrate;

supplying a reaction gas into said chamber under a reduced pressure;

generating plasma; and

etching a material film on said substrate,

wherein said first, second, third, fourth and fifth electrodes are disposed so that an electric power applied to an entire surface of said substrate becomes uniform, and

wherein said first, second, third, fourth and fifth electrodes are flush with each other.